

Satellite.	Phenomenon.	G. M. T.			In excess of N.A.			Observer.	Remarks.
		h	m	s	m	s			
1879, Dec. 12	II. Oc. D. First contact	4	56	5.6				W. McK.	Defin. good at times. Thin clouds passing.
	Bisection	58	10.2						
	Last seen	5	0	32.5					
23	IV. Sh. E. Int. contact	6	38	14.4				S. J. P.	Limb boiling. Defin. fair at centre. Sh. very black at edge of 24. Obs. indifferent.
	Bisection	49	57.0					"	Defin. very bad.
	I. Oc. D. Ext. contact	7	47	32.4					
	Bisection	49	57.0						
24	I. Tr. I. Ext. contact	4	57	28.5				W. McK.	At bisection thin clouds; at internal contact sky very clear.
	Bisection	5	0	41.1					
	Int. contact	4	19						
	I. Sh. I. Bisection	6	16	19.7				W. C.	Hazy and slightly tremulous. Sh. very black.
	Int. contact	17	37.2						
	I. Tr. E. Bisection	7	20	8.3				"	Satellite exceedingly faint on planet. Unsteady.
	Ext. contact	22	21.3					"	Satellite very faint off disk. Unsteady.
1880, Jan. 22	II. Tr. E. Bisection	6	15	38.7					
	Ext. contact	17	39.8						
Sept. 8	I. Ec. D. Last seen	13	16	10.3	+0	52.3		"	Very good.
28	III. Sh. I. Bisection	13	33	29.2				"	Good. Sh. very black, but very small.
	Int. contact	35	50.7						

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Sept. 28	Tr. I. Ext. contact	14 34 27.9		W. C.	Sky very misty, defin. rather poor. Sh. still very black.
	Bisection	38 54.4			
	Int. contact	44 44.4			
28	Sh. E. Int. contact	15 59 52.5		"	Sky hazy, but defin. fairly good.
	Bisection	16 3 9.0			
	Last seen	7 11.5			
Oct. 2	Ec. D. Last seen	8 14 45.7	+0 37.7		Rather difficult owing to brilliancy of planet.
2	Sh. I. Bisection	10 45 30.6		"	Rather faint. Defin. good.
	Int. contact	47 35.4			
2	Tr. I. Ext. contact	10 51 7.0		"	Hazy. Defin. rather poor.
	Bisection	52 31.7			
	Int. contact	54 52.4			
2	Tr. E. Bisection	13 1 40.5		"	Hazy. Defin. poor.
	Ext. contact	4 11.9			
3	Ec. D. Last seen	7 57 7.5	-0 18.5	S. J. P.	Fair, limb boiling, satellite close to limb.
3	Oc. R. First seen	10 12 50.1		"	Good, limb a little unsteady. Defin. very good.
	Bisection	14 50.4			
	Ext. contact	16 34.6			
8	Oc. D. Ext. contact	15 16 30.1		W. C.	Defin. good, rather unsteady.
	Bisection	18 31.6			
	Last seen	20 35.6			

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Oct. 9	III. Oc. D. Ext. contact	7 8 37.7		W. C.	Poor, very hazy, thin clouds.
	Bisection	11 46.9			
	Last seen	14 52.1			
9	" Ec. R. First seen	9 47 0.2	-3 18.8	"	Good, full brilliancy 4 ^m later. Rather difficult owing to satellite being so near J.
9	II. Oc. D. Ext. contact	10 39 28.5		"	Slight haze round J. Slightly tremulous but defin. good.
	Bisection	41 27.0			
	Last seen	43 35.4			
9	I. Tr. I. Ext. contact	12 32 55.6		"	Defin. poor, tremulous.
	Bisection	35 12.4			
	Int. contact	36 52.1			
9	" Sh. I. Bisection	12 39 27.7		"	Tremulous. Sh. faint.
	Int. contact	42 3.2			
9	II. Ec. R. First seen	13 24 42.7	-0 21.3	"	Very good.
9	I. Tr. E. Int. contact	14 42 25.9			Defin. good. Tremulous. Sh. too faint to observe in so unsteady a sky.
	Bisection	45 12.7			
	Ext. contact	47 57.9			
10	" Oc. D. Ext. contact	9 41 1.2		S. J. P.	Defin. poor. Satellite projected on limb during occultation. Limb very tremulous
	Bisection	45 24.7			
	Last seen	47 39.7			

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		^h ^m ^s	^m ^s		
Oct. 10	I. Ec. R. First seen	12 4 7.1	+ 1 25.1	W. C.	Good. Full light only approx.
	Full light	6 19.3			
11	" Tr. I. Ext. contact	6 55 2.0		S. J. P.	Satellite very bright on disk. Obs. only fair, misty.
	Bisection	57 0.6			
	Int. contact	7 0 43.8			
11	" Tr. E. Int. contact	9 6 27.1		"	Defin. good, but passing clouds.
	Bisection	10 12.3			
	Ext. contact	13 6.0			
19	" Oc. D. Ext. contact	5 53 23.7		W. C.	Last contact seen through thin clouds. Sh. very small, fairly distinct at times, but cloud too frequent for good obs. of egress of Sh.
	Bisection	54 56.7			Only fair, defin. poor, tremulous.
	Last seen	56 34.2			
19	" Ec. R. First seen	8 26 44.3	- 0 8.7	"	Fair. Screen used.
	Full light	29 51.9			
23	III. Oc. D. Ext. contact	13 40 23.8		"	Defin. good, slightly unsteady.
	Bisection	44 40.6			
	Last seen	49 9.0			
23	" Oc. D. Ext. contact	15 4 42.7		"	Defin. very poor, tremulous.
	Bisection	7 11.9			
	Last seen	9 2.6			

Satellite.	Phenomenon.	G. M. T. h m s	In excess of N. A. m s	Observer.	Remarks.
Nov. I. II.	Tr. I. Ext. contact	11 56 2.6		W. C.	Defn. not very good.
	Bisection	58 11.8			
	Int. contact	12 0 31.5			
I	Tr. I. Ext. contact	12 9 42.0		"	Defn. poor, unsteady.
	Bisection	10 30.6			
	Int. contact	13 4.8			
I	Sh. I. Bisection	12 54 26.6			Fair, defn. improved.
	Full on	56 26.2			
I	Sh. I. Bisection	13 16 21.9		W. C.	Defn. bad. Sh. small and faint.
	Full on	19 8.1			
I	Tr. E. Int. contact	14 21 41.0		"	Defn. fair, tremulous.
	Bisection	23 54.1			
	Ext. contact	26 35.3			
I	Tr. E. Int. contact	14 34 38.8		"	Very unsteady.
	Bisection	36 26.2			
	Ext. contact	38 12.0			
3	Oc. D. Ext. contact	6 26 47.6		"	Good.
	Bisection	30 11.1			
	Last seen	33 24.6			

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Satellite.	Phenomenon.	G. M. T. h m s	In excess of N.A. m s	Observer.	Remarks.
Nov. 3	I.	6 37 58.6		W. C.	Good.
	Bisection	40 40.3			
	Int. contact	43 6.1			
3	III.	6 47 51.6		"	Good.
	Bisection	52 34.6			
	Int. contact	57 50.1			
3	I.	7 21 38.2		"	Defn. fair. Sh. exceedingly faint, very difficult observation.
	Full on	23 24.2			
3	"	8 48 30.9		"	Defn. good, night improving.
	Tr. E. Int. contact	50 38.4			
	Bisection	52 50.4			
	Ext. contact	9 11 52.9		"	Defn. good, sky a little hazy, field white.
3	III.	18 25.4			
	Bisection	23 55.0			
	Ext. contact	9 29 39.5		"	Shadow faint, but obs. fair.
3	I.	30 59.5			
	Bisection	32 52.5			
	Last seen	9 41 29.5		"	Defn. good. Sh. very small but black.
3	III.	44 41.5			
	Sh. I. Bisection	10 26 40.0	-2 3.0	"	Very good, Sh. of III. very dark on disk.
3	II.	31 4.6			
	Ec. R. First seen				
	Full light				

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Satellite.	Phenomenon.	G. M. T.	In excess of N. A.	Observer.	Remarks
Nov. 3	III. Sh. E. Int. contact	h m s 12 3 26.8		W. C.	Very poor, defin. bad, unsteady.
	Bisection	6 55.8			
	Last seen	10 24.8			
19	II. Tr. I. Ext. contact	5 47 36.2		"	Very poor. Thin clouds passing.
	Bisection	49 55.7			
	Int. contact	52 23.2			
19	I. Tr. E. Int. contact	6 48 48.6		"	Good, night much better.
	Bisection	51 2.3			
	Ext. contact	53 25.1			
19	II. Tr. E. Int. contact	8 26 6.2		"	Rather tremulous, but obs. very good.
	Bisection	29 18.9			
	Ext. contact	31 36.4			
20	I. Ec. R. First seen	5 6 47.1	-0 19.9	"	Sky hazy, full light 3 ^m later. Tremulous, but obs. good.
21	II. Ec. R. First seen	4 56 25.5	-1 38.5	"	
21	III. Oc. R. Bisection	5 51 4.8			
27	Ext. contact	54 58.8		"	Sky rather hazy.
	I. Ec. R. First seen	7 2 36.3	-0 19.7		
	Full light	4 56.6			